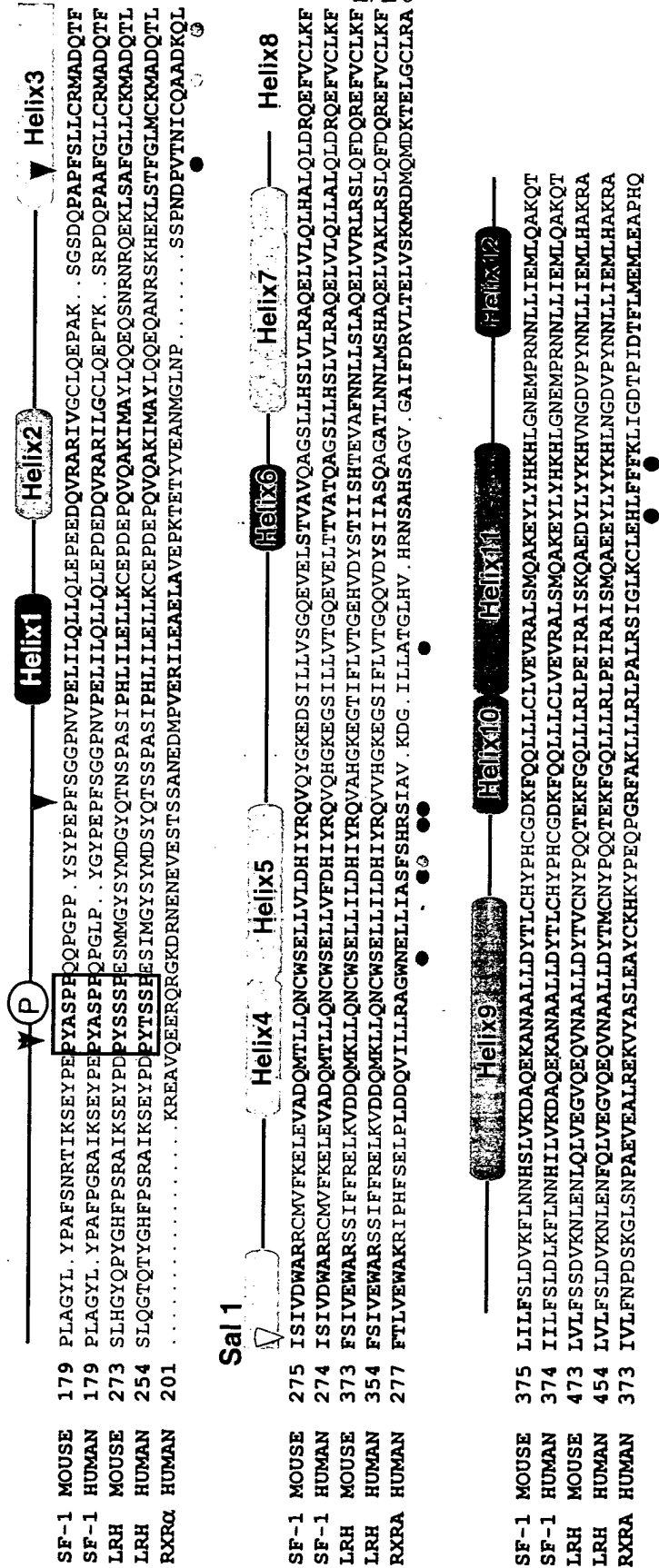


FIGURE 1

2/20



▼ Major Proteolytic Fragment
 ▼ Minor Proteolytic Fragment
 (P) MAPK consensus site

FIGURE 2

A

```

1  atggactact cgtacgacga ggacctggac gagctgtgtc cagtgtgttg tgacaagggtg
61  tcgggctacc actacgggct gctcacgtgc gagagctgca agggcttctt caagcgcaca
121 gtccagaaca acaagcatta cacgtgcacc gagagtcaga gctgcaaaat cgacaagacg
181 cagcgtaagc gctgtccctt ctgccgcttc cagaagtgcc tgacgggtggg catgcgcttg
241 gaagctgtgc gtgctgatcg aatgcggggt ggccggaaca agtttgggcc catgtacaag
301 agagaccggg ccttgaagca gcagaagaaa gcacagattc gggccaatgg cttcaagctg
361 gagaccggac caccgatggg ggtgcccccg ccaccccctc cccaccgga ctacatgtta
421 cccctagcc tgcacgcacc ggagcccaag gccctggtct ctggcccacc cagtgggccc
481 ctgggtgact ttggagcccc atctctaccc atggctgtgc ctgggtccca cggacctctg
541 gctggctacc tctatcctgc cttctctaac cgcaccatca agtctgagta tccagagccc
601 tatgccagcc cccacaaca gccagggcca ccctacagct atccagagcc cttctcagga
661 gggcccaatg taccagagct catattgcag ctgctgcaac tagagccaga ggaggaccag
721 gtgcgcgctc gcatcgtggg ctgtctgcag gagccagcca aaagccgctc tgaccagcca
781 gcgcccttca gcctcctctg cagaatggcc gaccagacct ttatctccat tgtcgactgg
841 gcacgaaggt gcatggtctt taaggagctg gaggtggctg accagatgac actgctgcag
901 aactgttgga gcgagctgct ggtgttgga ccatctacc gccagggtcca gtacggcaag
961 gaagacagca tcctgctggt tactggacag gaggtggagc tgagcacagt ggctgtgcag
1021 gctggctccc tgctgcacag cctggtgctg cgggcccaag agttagtgtc ccagttgcat
1081 gcaactgcagc tggaccgcca ggagttcgct tgtctcaagt tcctcatcct cttcagcctc
1141 gatgtgaaat tcctgaacaa ccacagcctc gtaaaggacg cccaggaaaa ggccaacgct
1201 gccctggttg attacacctt gtgtcactac ccacactgcg gggacaaatt ccagcagttg
1261 ctattgtgcc tgggtggaggt gcgggccctg agcatgcagg ccaaggagta cctgtaccac
1321 aagcatttgg gcaacgagat gccccgcaac aaccttctca ttgagatgct gcaggccaag
1381 cagacttga

```

B

```

MDYSYDEDLDELCPVCGDKVSGYHYGLLTCECKGFFKRTVQNN
KHYTCTESQSKIDKTQRKRCPFQKCLTVGMRLEAVRADMRGRNKFPGMYKRD
RALKQQKKAQIRANGFKLETGPPMGVPPPPPPPPDYMLPPSLHAPEPKALVSGPPSGP
LGDFGAPSLPMAVPGPHGPLAGYLYPAFSNRTIKSEYPEPYASPPQPGPPYSYPEPF
SGGPNVPELILQLLQLEPEEDQVRARIVGCLQEPAKSRSDQPAPFSLLCRMADQTFIS
IVDWARRCMVFKELEVADQMTLLQNCWSELLVLDHIYRQVQYGKEDSILLVTGQEVEL
STVAVQAGSLLHSLVLRAQELVLQLHALQLDRQEFVCLKFLILFSLDVKFLNNHSLVK
DAQEKANAALLDYTLCHYPHCGDKFQQLLLCLVEVRALSMQAKEYLHKHLGNEMPRN
NLLIEMLQAKQT

```

FIGURE 3

A

```
1  gcggacgccg  cgggcatgga  ctattcgtac  gacgaggacc  tggacgagct  gtgccccgtg
61  tgcgggggaca  aggtgtccgg  ctaccactac  ggactgctca  cgtgtgagag  ctgcaagggc
121  ttcttcaagc  gcacggtgca  gaacaacaag  cactacacgt  gcaccgagag  ccagagctgc
181  aagatcgaca  agacgcagcg  caagcgctgt  cccttctgcc  gcttccagaa  atgcctgacg
241  gtgggggatgc  gcctggaagc  cgtgcgcgct  gaccgtatga  ggggtggccg  gaacaagttt
301  gggccgatgt  acaagcggga  ccgggccctg  aaacagcaga  agaaggcaca  gattcggggc
361  aatggcttca  agctggagac  agggcccccg  atgggggtgc  cccgcgcgcc  ccctcccgca
421  ccggactacg  tgctgcctcc  cagcctgcat  gggcctgagc  ccaaggccct  ggccgccggt
481  ccacctgctg  ggccactggg  cgactttggg  gccccagcac  tgcccatggc  cgtgcccggt
541  gcccacgggc  cactggctgg  ctacctctac  cctgccttcc  ctggccgtgc  catcaagtct
601  gagtaccgag  agccttatgc  cagcccccca  cagcctgggc  tgccgtacgg  ctaccagag
661  cccttctctg  gagggcccaa  cgtgcctgag  ctcatcctgc  agctgctgca  gctggagccg
721  gatgaggacc  aggtgcgggc  ccgcatcttg  ggctgcctgc  aggagccac  caaaagccgc
781  cccgaccagc  cggcggcctt  cggcctcctg  tgcagaatgg  ccgaccagac  cttcatctcc
841  atcgtggact  gggcacgcag  gtgcatggtc  ttcaaggagc  tggaggtggc  cgaccagatg
901  acgctgctgc  agaactgctg  gagcgagctg  ctggtgttcg  accacatcta  ccgccaggtc
961  cagcacggca  aggagggcag  catcctgctg  gtcaccgggc  aggaggtgga  gctgaccaca
1021  gtggccaccc  aggcgggctc  gctgctgcac  agcctggtgt  tgcgggcgca  ggagctggtg
1081  ctgcagctgc  ttgcgctgca  gctggaccgg  caggagtttg  tctgcctcaa  gttcatcatc
1141  ctcttcagcc  tggatttgaa  gttcctgaat  aaccacatcc  tggtgaaaga  cgctcaggag
1201  aaggccaacg  ccgccctgct  tgactacacc  ctgtgccact  acccgcactg  cggggacaaa
1261  ttccagcagc  tgctgctgtg  cctggtggag  gtgcggggcc  tgagcatgca  ggccaaggag
1321  tacctgtacc  acaagcacct  gggcaacgag  atgccccgca  acaacctgct  catcgaaatg
1381  ctgcaagcca  agcagacttg  agectgggcc  gggggcgggg  ccgggactgg  gggcgggact
1441  gggggcgggg  cctgggcggg  gccgcagcca  caccgctggc  tccgcatggt  tcattttctg
1501  atgcccaccg  aggagcccca  gccccgtccc  agaggccgct  gccctgagt  tctgacactg
1561  tgtgtttggg  aaggtgggtg  aggctgggca  gggcctggcg  gagtgaggag  ggccactggc
1621  acttgccctg  tgcttgagtg  gccccaaagga  ggtggctgtt  aaccaccgc  cccgccccct
1681  ccctgctccc  agctctctct  cctggagtct  gaagcctgca  ggtccgggga  ggaggttcgg
1741  gattccctgg  tgggcctcga  cgtcccttgg  atcagaggtc  atcccttct  cctctcctgg
1801  aaacagacag  ggagaagttg  agcaggtatc  aactagggga  ggagagaggg  tctccagtg
1861  tccccccata  gagaccagga  gggagagcct  ctggt
```

B

```
MDYSYDEDLDELCPVCGDKVSGYHYGLLTCECKGFFKRTVQNN
KHYTCTESQSKIDKTQRKRCPFQKCLTVGMRLEAVRADRMGRGNKFGPMYKRD
RALKQQKKAQIRANGFKLETGPPMGVPPPPPPAPDYVLPPSLHGPEPKGLAAGPPAGP
LGDFGAPALPMAVPGAHGPLAGYLYPAFPGRAIKSEYPEPYASPPQGLPYGYPEPFS
GGPNVPELILQLLQLEPDEDQVRARILGCLQEPTKSRPDQPAAFGLLCRMADQTFISI
VDWARRCMVFKELEVADQMTLLQNCWSELLVFDHIYRQVQHGKEGSILLVTGQEVELT
TVATQAGSLLHSLVLRAQELVLQLLALQLDRQEFVCLKFIIILFSLDLKFLNNHILVKD
AQEKANAALLDYTLCHYPHCGDKFQQLLLCLVEVRALSMQAKEYLHKHLGNEMPRNN
LLIEMLQAKQT
```

FIGURE 4

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```
1  tgtttttttcc cccttttttct taacttttcac taaggaaatg agggttactg tagtctgagg
61  tttccttccc aaagtcacaa aatatgacaa gctgcaatct ttctcacatt caatgatttc
121 tgctgtaagc caaaggactg ccaataatth cgctaagaat gtctgctagt ttggatactg
181 gagattttca agaattttctt aagcatggac ttacagctat tgcgtctgca ccagggtcag
241 agactcgcca ctcccccaaa cgtgaggaac aactccggga aaaacgtgct gggcttccgg
301 accgacaccg acgccccatt cccgcccgcg gccgccttgt catgctgccc aaagtggaga
361 cggaagcccc aggactggtc cgatcgcatg gggaacaggg gcagatgcca gaaaacatgc
421 aagtgtctca atttaaaatg gtgaattact cctatgatga agatctggaa gagctatgtc
481 ctgtgtgtgg cgataaagtg tctgggtacc attacggtct cctcacgtgc gaaagctgca
541 agggtttttt taagcgaact gtccaaaacc aaaaaaggta cacgtgcata gagaaccaga
601 attgccaaat tgacaaaacg cagagaaaac gatgtcccta ctgtcgattc aaaaaatgta
661 tcgatgttgg gatgaagctg gaagccgtaa gagccgaccg catgcgaggg gcagaaaata
721 agtttgggcc aatgtacaag agagacaggg ctttgaagca gcagaagaaa gccctcattc
781 gagccaatgg acttaagctg gaagccatgt ctcaggtgat ccaagcaatg ccctcagacc
841 tgacctctgc aattcagaac attcattccg cctccaaagg cctacctctg agccatgtag
901 ccttgccctc gacagactat gacagaagtc cctttgtcac atctcccatt agcatgacaa
961 tgccacctca cagcagcctg catggttacc aaccctatgg tcactttcct agtcggggcca
1021 tcaagtctga gtaccagac ccctactcca gctcacctga gtcaatgatg ggttactcct
1081 acatggatgg ttaccagaca aactccccgg ccagcatccc acacctgata ctggaacttt
1141 tgaagtgtga accagatgag cctcaagttc aagcgaagat catggcttac ctccagcaag
1201 agcagagtaa ccgaaacagg caagaaaagc tgagcgcatt tgggctttta tgcaaaatgg
1261 cggaccagac cctgttctcc attgttgagt gggccaggag tagtatcttc ttcagggaac
1321 tgaaggttga tgaccaaatg aagctgcttc aaaactgctg gagtgaagtc ttgattctcg
1381 atcacattta ccgacaagtg gcgcatggga aggaaggagc aatcttcctg gttactggag
1441 aacacgtgga ctactccacc atcatctcac acacagaagt cgcgttcaac aacctcctga
1501 gtctcgacaa ggagctgggt gtgaggctcc gttcccttca gttcgatcag cgggagtttg
1561 tatgtctcaa gttcctgggt ctgttcagct cagatgtgaa gaacctggag aacctgcagc
1621 tgggtggaagg tgtccaagag caggtgaatg ccgccctgct ggactacacg gtttgcaact
1681 acccacaaca gactgagaaa ttcggacagc tacttcttcg gctacccgag atccgggcaa
1741 tcagcaagca ggcagaagac tacctgtact ataagcacgt gaacggggat gtgccctata
1801 ataacctcct cattgagatg ctgcatgcca aaagagccta agtccccacc cctggaagct
1861 tgctctagga acacagactg gaaggagaag aggaggacga tgacagaaac acaatactct
1921 gaactgctcc aagcaatgct aattataaac ttggttttaa gacactgaat tttaaaagca
1981 taataattaa atacctaata gcaaataaat gatatatcag ggtatttgta ctgcaaaactg
2041 tgaatcaaag gctgtatgaa tcaaaggatt catatgaaag acattgtaat ggggtggatt
2101 gaacttacag atggagacca ataccacagc agaataaaaa tggacagaac aatccttgta
2161 tatttaaaact aatctgctat taagaaattc agaagttgat ctctgttatt aattggattt
2221 gtcctgaatt actccgtggg gacgctgaac aactcaagaa tacatgggct gtgcttggca
2281 gcccctcccc atccctccca ccaccaccac ccccccacc acaaggccct ataccttctg
2341 acctgtgagc cctgaagcta ttttaaggac ttctgttcag ccataccag tagtagctcc
2401 actaaacat gatthctgga tgtctgtgtc ttagacctgc caacagctaa taagaacaat
2461 gtataaatat gtcagcttgc attttaaata tgtgctgaag tttgttttgt cgtgtgttcg
2521 taattaaaaa gaaaacgggc agtaaccctc ttctatataa gcattagtta atattaaggg
2581 aatcaaaca aatctaagcc aatactccca acaagcaagt tagatcttac ttctgctgct
2641 gttgctgaaa tgtggctttg gcatggttgg gtttcataaa actttttggc caagaggctt
2701 gttagtatac atccatctgt ttagtcatca aggtttgtag ttcacttaaa aaaaaataaa
2761 ccactagaca tcttttgctg aatgtcaaat agtcacagtc taagtagcca aaagtcaaa
2821 gcgtgttaaa cattgccaaa tgaaggaaag ggtgagctgc aaaggggatg gttcgaggtt
2881 cattccagtt gtgacccgag cgtcccaaaa acctgggatg caaagacagt gattctgcat
2941 atggcctgga aagacaggaa agccagtctc ctacaaaggg gaatggaaga tcctggcctc
3001 taagtcatag accaaagtct gctgtag
```

FIGURE 5A

MSASLDTGDFQEFLKHGLTAIASAPGSETRHSPKREEQLREKRA
GLPDRHRRPIPARSRLVMLPKVETEAPGLVRSHGEQGQMPENMQVSQFKMVNYSYDED
LEELCPVCGDKVSGYHYGLLTCECKGFFKRTVQNQKRYTCIENQNCQIDKTQRKRCP
YCRFKKCIDVGMKLEAVRADRMRGGRNKFPGMYKRDRAKQKKALIRANGLKLEAMS
QVIQAMPSDLTSAIQNIHSASKGLPLSHVALPPTDYDRSPFVTSPISMTMPHSSLHG
YQPYGHFPSRAIKSEYPDPYSSSPESMMGYSYMDGYQTNSPASIPHLILELLKCEPDE
PQVQAKIMAYLQQEQSNRNRQEKLSAFGLLCKMADQTLFSIVEWARSSIFFRELKVDD
QMKLLQNCWSELLILDHIYRQVAHGKEGTIFLVTGEHVDYSTIISHTEVAFNNLLSLA
QELVVRLRSLQFDQREFVCLKFLVLFSSDVKNLENLQLVEGVQEQVNAALLDYTVCN
PQOTEKFGQLLLRLPEIRAIKQAEDYLYYKHVNGDVPYNNLLIEMLHAKRA

FIGURE 5B

```
1  ttttgctcaa  tgatttctgc  ttttaagccaa  agaactgcct  ataatttcac  taagaatgtc
61  ttctaattca  gatactgggg  atttacaaga  gtctttaaag  cacggactta  cacctattgt
121 gtctcaattt  aaaatggtga  attactccta  tgatgaagat  ctggaagagc  tttgtcccg
181 gtgtggagat  aaagtgtctg  ggtaccatta  tgggctcctc  acctgtgaaa  gctgcaaggg
241 attttttaag  cgaacagtcc  aaaataataa  aaggtacaca  tgtatagaaa  accagaactg
301 ccaaattgac  aaaacacaga  gaaagcgttg  tccttactgt  cgttttcaaa  aatgtctaag
361 tgttggaatg  aagctagaag  ctgtaagggc  cgaccgaatg  cgtggaggaa  ggaataagtt
421 tgggccaatg  tacaagagag  acagggccct  gaagcaacag  aaaaaagccc  tcatccgagc
481 caatggactt  aagctagaag  ccatgtctca  ggtgatccaa  gctatgccct  ctgacctgac
541 catttcctct  gcaattcaaa  acatccactc  tgcttccaaa  ggcttacctc  tgaacctatg
601 tgccttgccct  cctacagact  atgacagaag  tccctttgta  acatccccc  ttagcatgac
661 aatgccccct  cacggcagcc  tgcaaggtta  ccaaacatat  ggccactttc  ctagccgggc
721 catcaagtct  gagtaccag  acccctatac  cagctcacc  gagtccataa  tgggctattc
781 atatatggat  agttaccaga  cgagctctcc  agcaagcatc  ccacatctga  tactggaact
841 tttgaagtgt  gagccagatg  agcctcaagt  ccaggctaaa  atcatggcct  atttgacga
901 agagcaggct  aaccgaagca  agcacgaaaa  gctgagcacc  tttgggctta  tgtgcaaaat
961 ggcagatcaa  actctcttct  ccattgtcga  gtgggccagg  agtagtatct  tcttcagaga
1021 acttaagggt  gatgaccaa  tgaagctgct  tcagaactgc  tggagtgagc  tcttaatcct
1081 cgaccacatt  taccgacaag  tggtagatgg  aaaggaagga  tccatcttcc  tggttactgg
1141 gcaacaagtg  gactattcca  taatagcatc  acaagccgga  gccaccctca  acaacctcat
1201 gagtcatgca  caggagttag  tggcaaaact  tcgttctctc  cagtttgatc  aacgagagtt
1261 cgtatgtctg  aaattcttgg  tgctctttag  tttagatgtc  aaaaaccttg  aaaacttcca
1321 gctggtagaa  ggtgtccagg  aacaagtcaa  tgccgccctg  ctggactaca  caatgtgtaa
1381 ctaccgcgag  cagacagaga  aatttggaac  gctacttctt  cgactaccgc  aaatccgggc
1441 catcagtatg  caggctgaag  aatacctcta  ctacaagcac  ctgaacgggg  atgtgcccta
1501 taataacctt  ctcatgaaa  tgttgcatgc  caaaagagca  taagttacaa  cccctaggag
1561 ctctgctttc  aaaacaaaa  gagattgggg  gagtggggag  ggggaagaag  aacaggaaga
1621 aaaaaagtac  tctgaactgc  tccaagcaac  gctaattaaa  aacttgcttt  aaagatattg
1681 aatttaaaaa  ggcataataa  tcaaatactt  aatagcaaat  aatgatgta  tcagggtatt
1741 tgtattgcaa  actgtgaatc  aaaggcttca  cagccccaga  ggattccata  taaaagacat
1801 tgtaaggagt  ggattgaact  cacagatgga  taccaacacg  gtcagaagaa  aaacggacag
1861 aacggttctt  gtatattaaa  ctgatctcca  ctatgaagaa  atttaggaac  taatcttggt
1921 aattaggctt  atacagcggg  ggatttgagc  ttacaggatt  cctccatggt  aaagctgaac
1981 tgaaacaatt  ctcaagaatg  catcagctgt  acctacaata  gccctccct  cttcctttga
2041 aggcccgagc  acctctgcc  tgtggtcacc  gaatctgtac  taaggacctg  tgttcagcca
2101 caccagtgg  agctccacca  aatcatgaac  agcctaattt  gagtgtctgt  gtcttagacc
2161 tgcaaacagc  taataggaaa  ttctattaat  atgttagctt  gccattttaa  atatgttctg
2221 agggttggtt  tgtctcgtgt  tcatgatgtt  aagaaaatgc  aggcagtatc  cctcatctta
2281 tgtaagtgtg  aattaatatt  aagggaatg  actacaaact  ttcaaagcaa  atgtccata
2341 gctaaagcaa  cttagacctt  atttctgcta  ctggttgctga  aatgtggctt  tggcattggt
2401 ggatttcata  aaaaatttct  ggcaggaagt  cttgttagta  tacatcagtc  ttttcatca
2461 tccaagtttg  tagttcattt  aa
```

FIGURE 6A

MSSNSDTGDLQESLKHGLTPIVSQFKMVNYSYDEDELEELCPVCG
DKVSGYHYGLLTCECKGFFKRTVQNNKRYTCIENQNCQIDKTQRKRCPYCRFQKCLS
VGMKLEAVRADRMGRGNKFGPMYKRDRALKQOKKALIRANGLKLEAMSQVIQAMPSD
LTISSAIQNIHSASKGLPLNHAALPPTDYDRSPFVTSPISMTMPPHGSLQGYQTYGHF
PSRAIKSEYPDPYTSSPESIMGYSYMDSYQTSSPASIPHLILELLKCEPDEPQVQAKI
MAYLQQEQANRSKHEKLSTFGLMCKMADQTLFSIVEWARSSIFFRELKVDDQMKLLQN
CWSELLILDHIYRQVVHGKEGSI FLVTGQQVDYSIIASQAGATLNNLMSHAQELVAKL
RSLQFDQREFVCLKFLVLFSLDVKNLENFQLVEGVQEQVNAALLDYTCNYPQQTEKF
GQLLLRLPEIRAI SMQAEEYLYYKHLNGDVPYNNLLIEM LHAKRA

FIGURE 6B

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Variant 1

```

655 tcagga
661 gggcccaatg taccagagct catattgcag ctgctgcaac tagagccaga ggaggaccag
721 gtgcgcgctc gcatcgtggg ctgtctgcag gagccagcca aaagccgctc tgaccagcca
781 gcgcccttca gcctcctctc gcgaatggcc gaccagacct ttatctccat tgtcgactgg
841 gcacgaaggt gcatggtctt taaggagctg gaggtggctg accagatgac actgctgcaa
901 aactcttgga gcgagctgct ggtgttgga caccatctacc gccagggtcca gtacggcaag
961 gaagacagca tcctgctggt tactggacag gaggtggagc tgagcacagt ggctgtgcag
1021 gctggctccc tgctgcacag cctggtgctg cgggcccaag agttagtgtc ccagttgcat
1081 gcaactgcagc tggaccgcca ggagttcgtc tgtctcaagt tcctcatcct cttcagcctc
1141 gatgtgaaat tcctgaacaa ccacagcctc gtaaaggacg cccaggaaaa ggccaacgct
1201 gccctgttgg attacacctt gtgtcactac ccacactgcg gggacaaatt ccagcagttg
1261 ctattgtcgc tgggtggaggt gcgggccctg agcatgcagg ccaaggagta cctgtaccac
1321 aagcatttgg gcaacgagat gccccgcaac aaccttctca ttgagatgct gcaggccaag
1381 cagacttga
    
```

SG

```

GPNVPELILQ LLQLEPEEDQ VRARIVGCLQ EPAKSRSDQP APFSLLSRMA DQTFISIVDW
ARRCMVFKEL EVADQMTLLQ NSWSELLVLD HIYRQVQYK EDSILLVTGQ EVELSTVAVQ
AGSLLHSLVL RAQELVLQLH ALQLDRQEFV CLKFLILFSL DVKFLNNHSL VKDAQEKANA
ALLDYTLCHY PHCGDKFQQL LLSLVEVRAL SMQAEKEYLYH KHLGNEMPRN NLLIEMLQAK QT
    
```

FIGURE 7A

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Variant 2

655 tcagga
661 gggcccaatg taccagagct catattgcag ctgctgcaac tagagccaga ggaggaccag
721 gtgcgcgctc gcatcgtggg ctgtctgcag gagccagcca aaagccgctc tgaccagcca
781 gcgcccttca gcctcctctg cagaatggcc gaccagacct ttatctccat tgtcgactgg
841 gcacgaaggt gcatggtctt taaggagctg gaggtggctg accagatgac actgctgcaa
901 aactcttggg gcgagctgct ggtggttgac cacatctacc gccagggtcca gtacggcaag
961 gaagacagca tcctgctggg tactggacag gaggtggagc tgagcacagt ggctgtgcag
1021 gctggctccc tgctgcacag cctggtgctg cgggcccagg agttagtgtc ccagttgcat
1081 gcactgcagc tggaccgcca ggagttcgct tgtctcaagt tcctcatcct cttcagcctc
1141 gatgtgaaat tcctgaacaa ccacagcctc gtaaaggacg cccaggaaaa ggccaacgct
1201 gccctggttg attacacct gtgtcactac ccacactgcg gggacaaatt ccagcagttg
1261 ctattgtcgc tgggtggaggt gcgggccctg agcatgcagg ccaaggagta cctgtaccac
1321 aagcatttgg gcaacgagat gccccgcaac aaccttctca ttgagatgct gcaggccaag
1381 cagacttga

SG

GPNVPELILQ LLQLEPEEDQ VRARIVGCLQ EPAKSRSDQP APFSLLCRMA
DQTFISIVDW ARRCMVFKEL EVADQMTLLQ NSWSELLVLD HIYRQVQYGK
EDSILLVTGQ EVELSTVAVQ AGSLLHSLVL RAQELVLQLH ALQLDRQEFV
CLKFLILFSL DVKFLNNHSL VKDAQEKANA ALLDYTLCHY PHCGDKFQQL
LLSLVEVRAL SMQAKELYLH KHLGNEMPRN NLLIEMLQAK QT

FIGURE 7B

Variant 3

```

655 tcagga
661 gggcccaatg taccagagct catattgcag ctgctgcaac tagagccaga ggaggaccag
721 gtgcgcgctc gcatcgtggg ctgtctgcag gagccagcca aaagccgctc tgaccagcca
781 gcgcccttca gcctcctctg cagaatggcc gaccagacct ttatctccat tgtcgactgg
841 gcacgaaggt gcatggtctt taaggagctg gaggtggctg accagatgac actgctgcag
901 aactgttgga gcgagctgct ggtgttgga cacaatctacc gccagggtcca gtacggcaag
961 gaagacagca tcctgctggt tactggacag gaggtggagc tgagcacagt ggctgtgcag
1021 gctggctccc tgctgcacag cctggtgctg cgggcccagg agttagtgtc ccagttgcat
1081 gcaactgcagc tggaccgcca ggagttcgtc tgtctcaagt tcctcatcct cttcagcctc
1141 gatgtgaaat tcctgaacaa ccacagcctc gtaaaggacg cccaggaaaa ggccaacgct
1201 gccctgttgg attacacctt gaggcactac ccacactcgc gggacaaatt ccagcagttg
1261 ctattgtgcc tgggtggaggt gcgggccctg agcatgcagg ccaaggagta cctgtaccac
1321 aagcatttgg gcaacgagat gccccgcaac aaccttctca ttgagatgct gcaggccaag
1381 cagacttga
    
```

SG

```

GPNVPELILQ LLQLEPEEDQ VRARIVGCLQ EPAKSRSDQP APFSLLCRMA DQTFISIVDW
ARRCMVFKEE EVADQMTLLQ NCWSELLVLD HIYRQVQYQK EDSILLVTGQ EVELSTVAVQ
AGSLLHSLVL RAQELVLQLH ALQLDRQEFV CLKFLILFSL DVKFLNNHSL VKDAQEKANA
ALLDYTL1SHY PH2SGDKFQQL LLCLVEVRAL SMQAKELYLH KHLGNEMPRN NLLIEMLQAK QT
    
```

FIGURE 7C

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Variant 4

655 tcagga
661 gggcccaatg taccagagct catattgcag ctgctgcaac tagagccaga ggaggaccag
721 gtgctgcgtc gcatcgtggg ctgtctgcag gagccagcca aaagccgctc tgaccagcca
781 gcgcccttca gcctcctctg cagaatggcc gaccagacct ttatctccat tgtcgactg
841 gcacgaaggt gcatggtctt taaggagctg gaggtggctg accagatgac actgctgca
901 aactccttga gcgagctgct ggtgttggac cacatctacc gccagggtcca gtacggcaag
961 gaagacagca tcctgctggt tactggacag gaggtggagc tgagcacagt ggctgtgcag
1021 gctggctccc tgctgcacag cctggtgctg cgggcccaag agttagtgtc ccagttgcat
1081 gcaactgcagc tggaccgcca ggagttcgtc tgtctcaagt tcctcatcct cttcagcctc
1141 gatgtgaaat tcctgaacaa ccacagcctc gtaaaggacg cccaggaaaa ggccaacgct
1201 gccctgttgg attacacctt gaggcactac ccacactcgg gggacaaatt ccagcagttg
1261 ctattgtcgc tgggtggaggt gcgggccctg agcatgcagg ccaaggagta cctgtaccac
1321 aagcatttgg gcaacgagat gccccgcaac aaccttctca ttgagatgct gcaggccaag
1381 cagacttga

SG

GPNVPELILQ LLQLEPEEDQ VRARIVGCLQ EPAKSRSDQP APFSLLCRMA DQTFISIVDW
ARRCMVFKEL EVADQMTLLQ NSWSELLVLD HIYRQVQYK EDSILLVTGQ EVELSTVAVQ
AGSLLHSLVL RAQELVLQLH ALQLDRQEFV CLKFLILFSL DVKFLNNHSL VKDAQEKANA
ALLDYTL^SHY PH^SSGDKFQQL LL^SSLVEVRAL SMQAKKEYLYH KHLGNEMPRN NLLIEMLQAK QT

FIGURE 7D

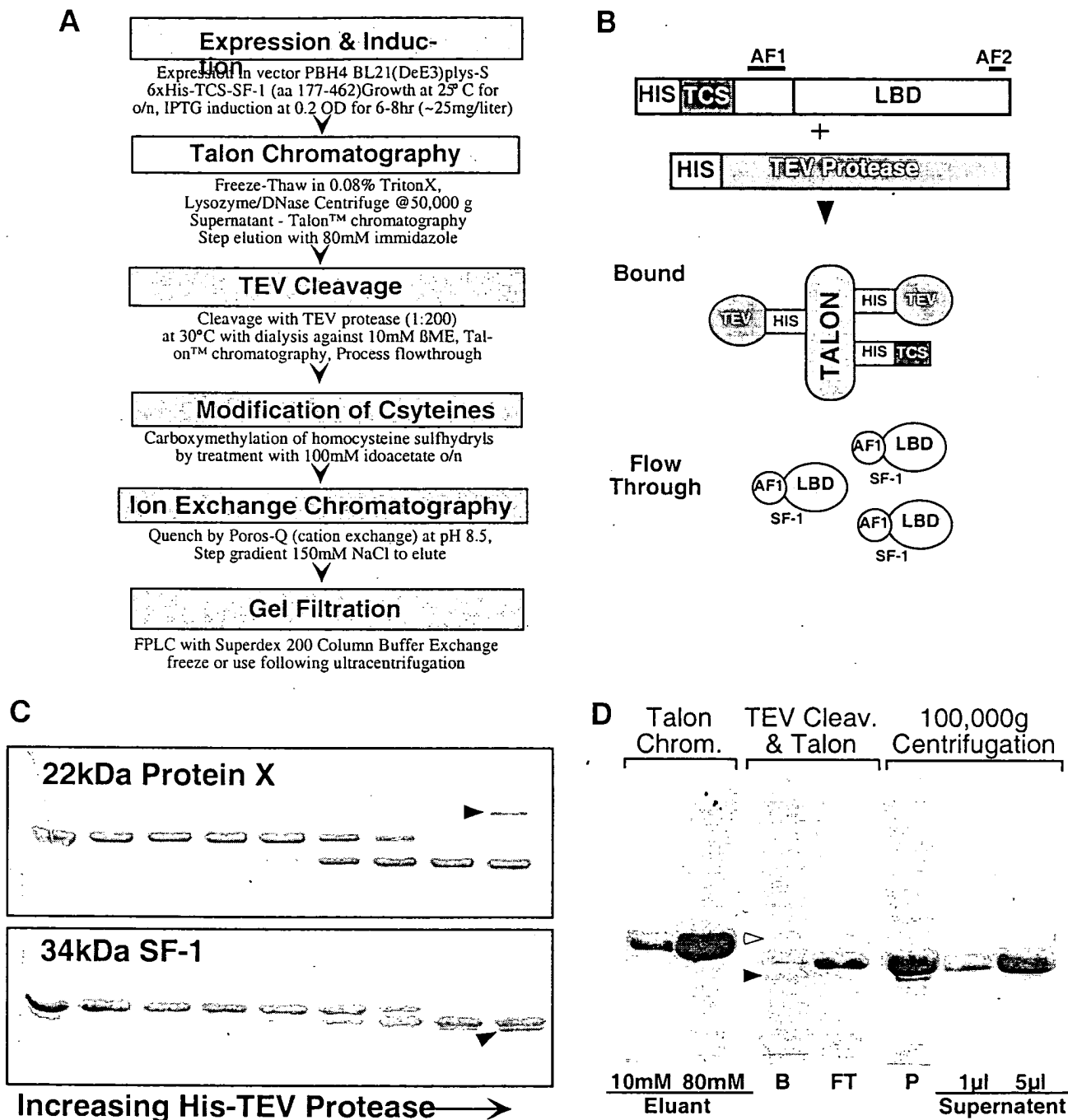


FIGURE 8

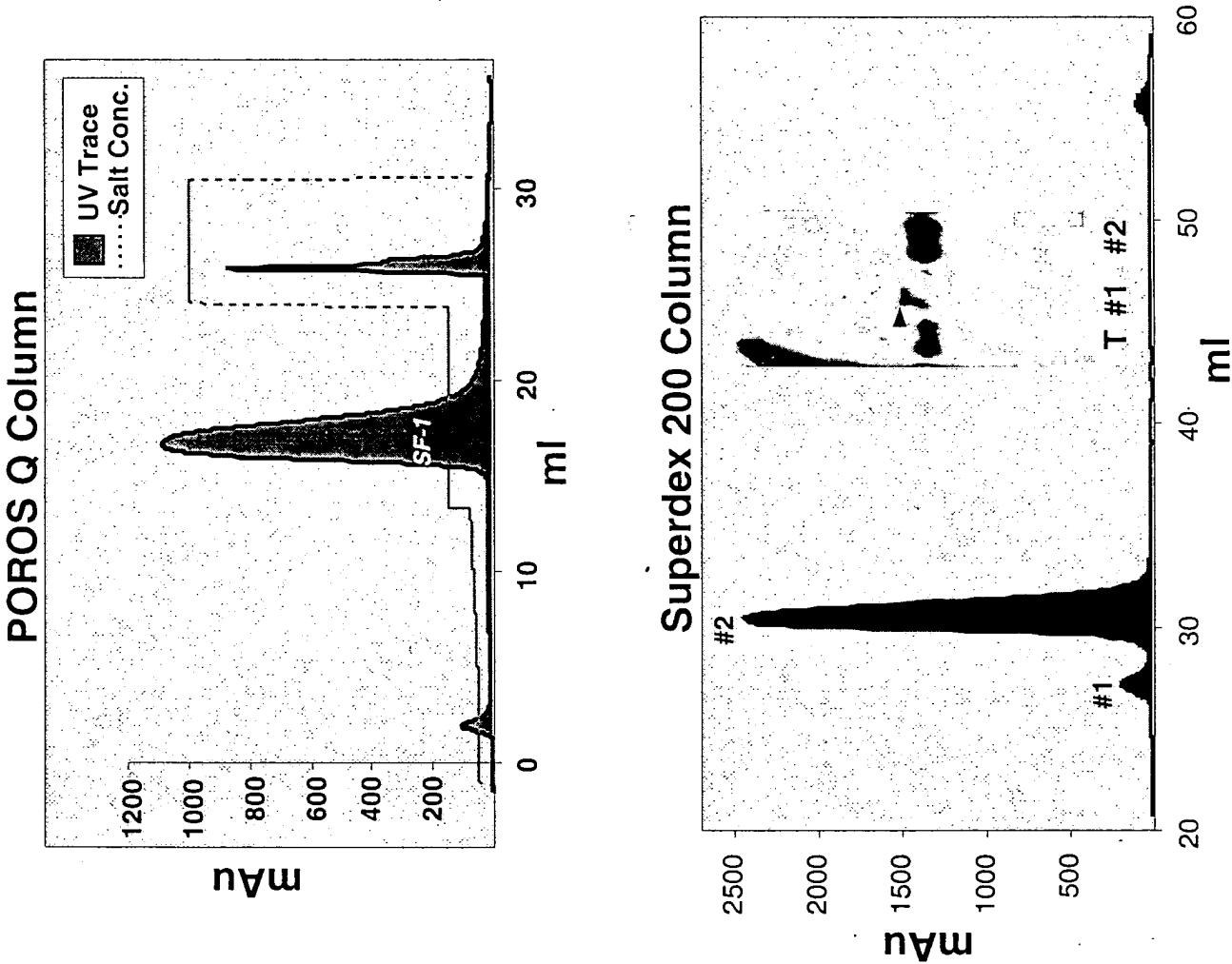


FIGURE 9

Mass Spectrum of SF-1 (Wildtype)

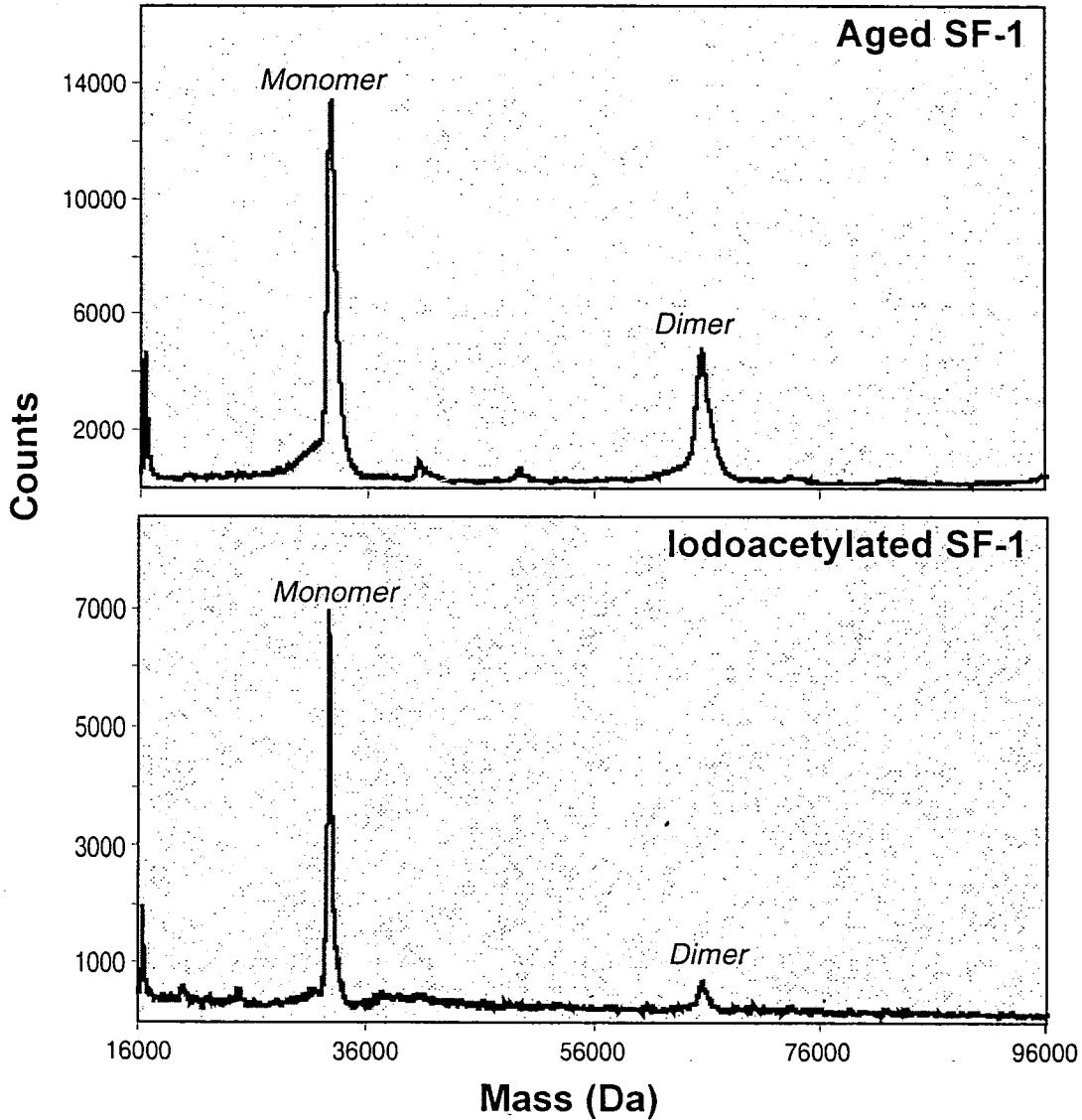


FIGURE 10



FIGURE 11

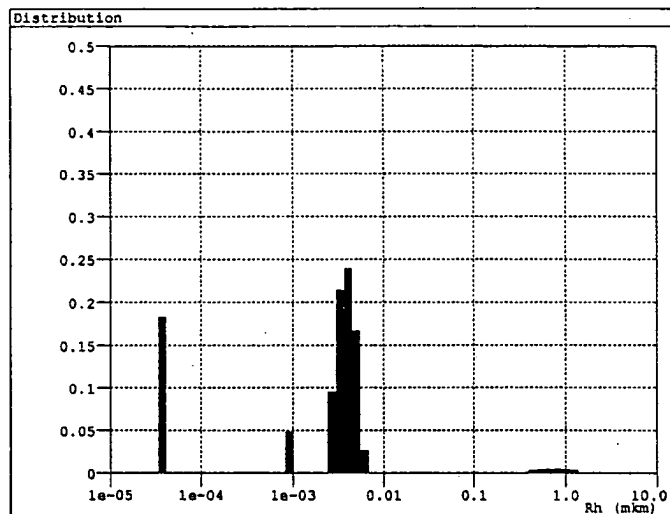


FIGURE 12A

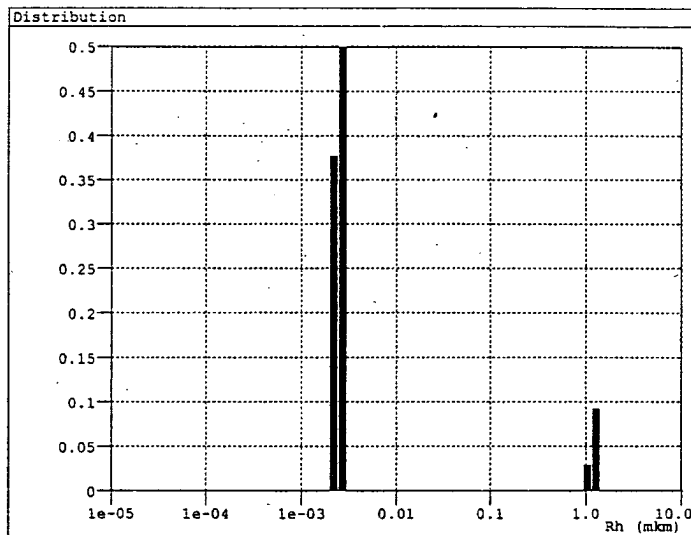


FIGURE 12B

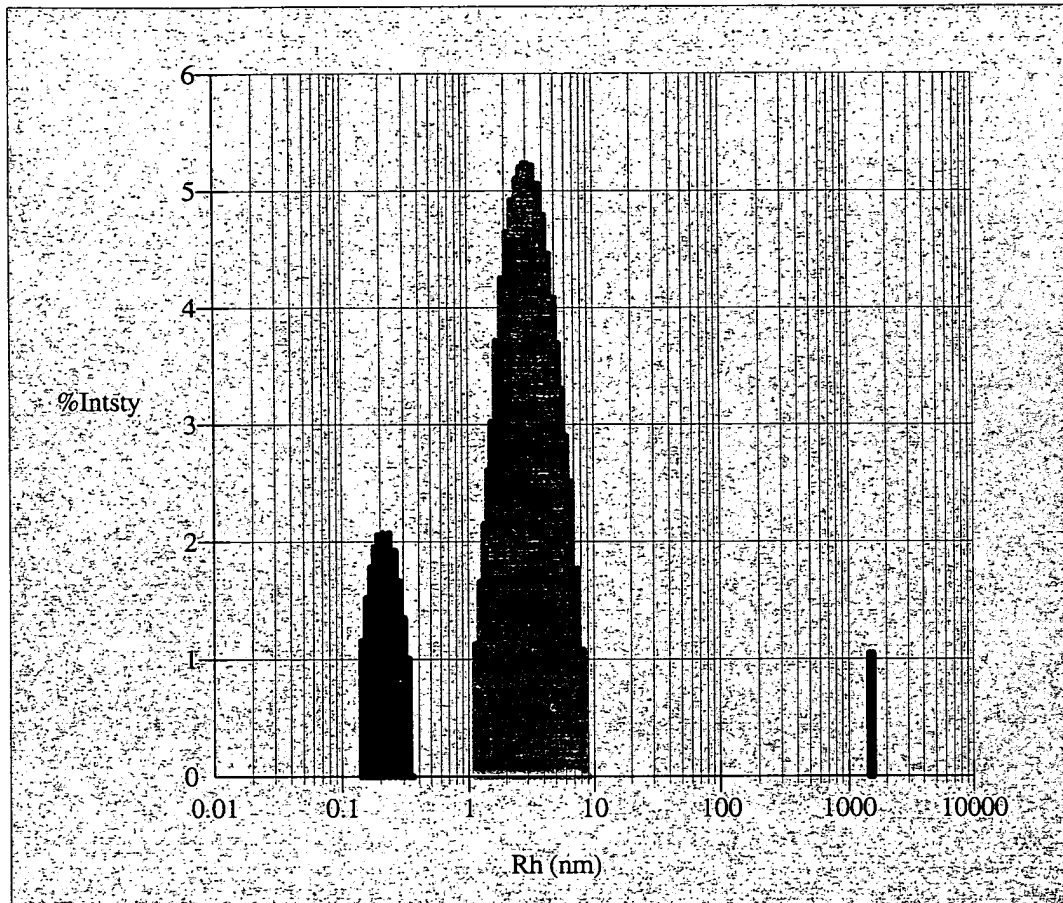


FIGURE 12C

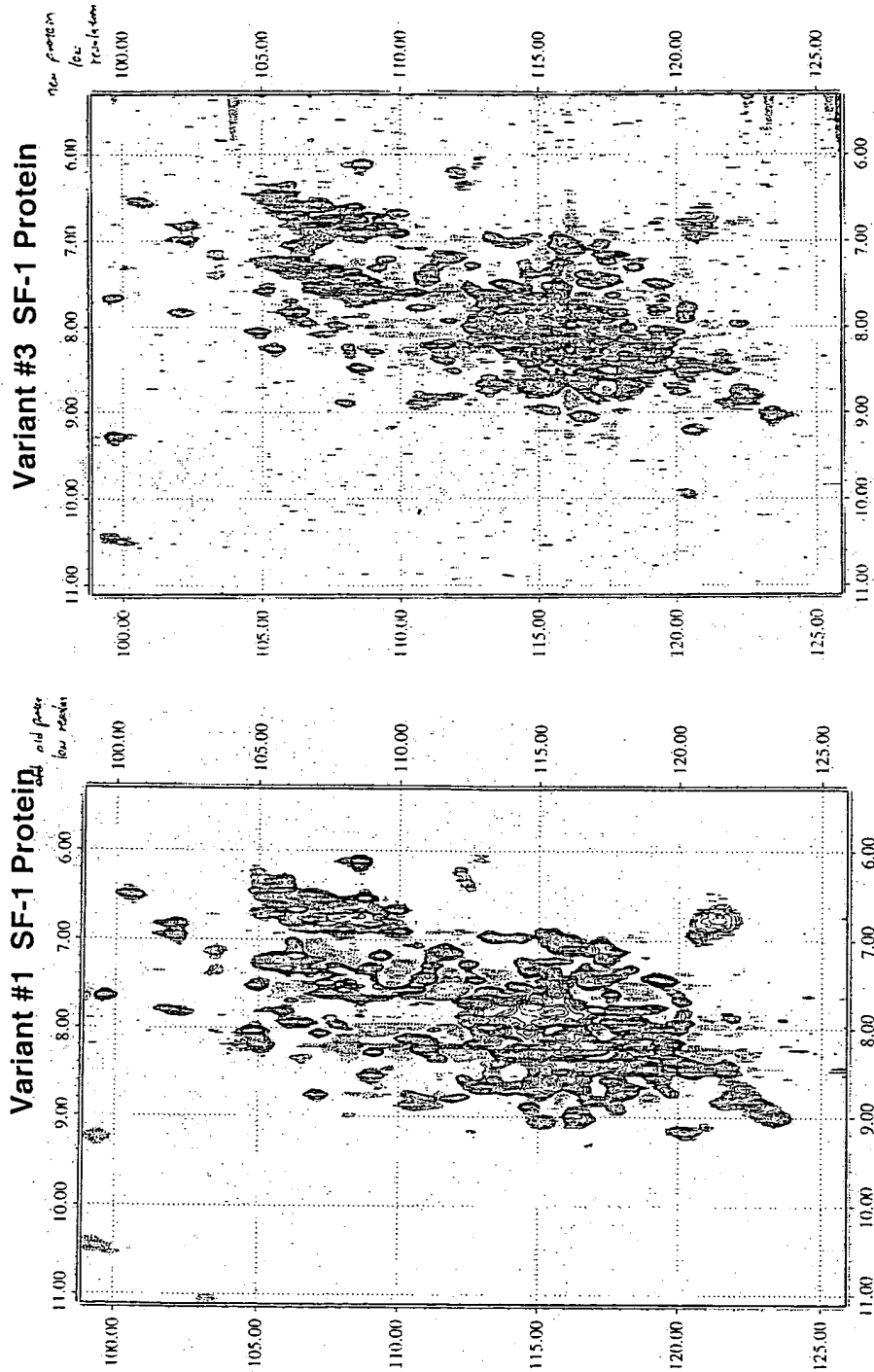
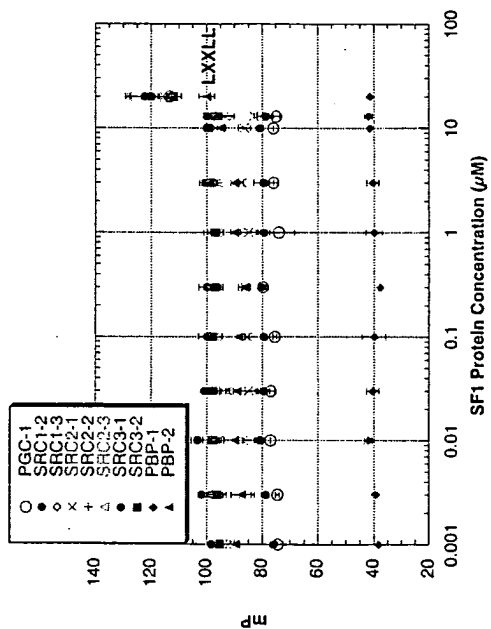
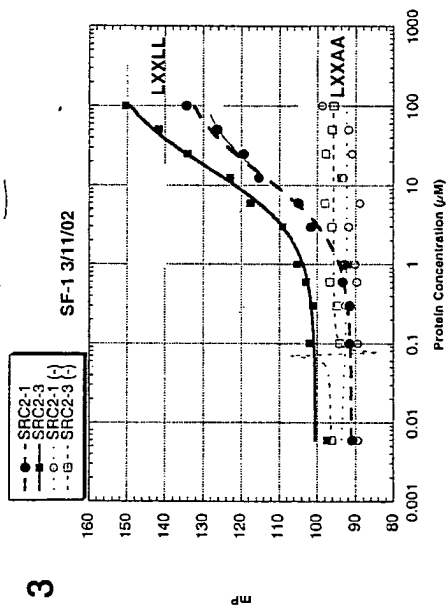


FIGURE 13

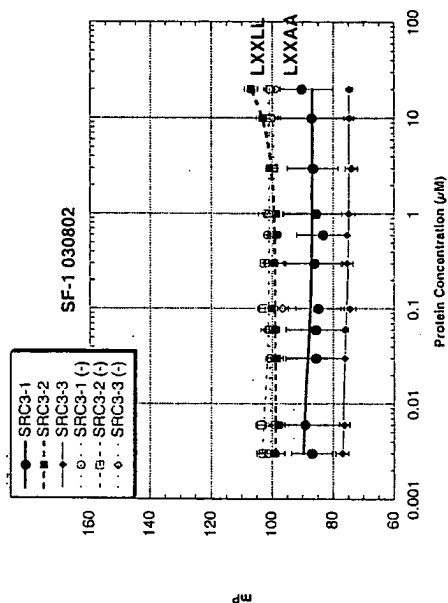
Variant # 1



Grip-Like Peptides



SRC-Like Peptides



Variant # 3

FIGURE 14